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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,557	08/02/2000	Keiichi Nakajima	P 271790 NI-0005PCTUS	9517
909	7590	03/08/2005	EXAMINER	
PILLSBURY WINTHROP, LLP P.O. BOX 10500 MCLEAN, VA 22102			KYLE, CHARLES R	
			ART UNIT	PAPER NUMBER
			3624	

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/630,557

Applicant(s)

NAKAJIMA, KEIICHI

Examiner

Charles R Kyle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-53 is/are pending in the application.
- 4a) Of the above claim(s) 27-43 and 50-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-26 and 44-49 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4 IDSs.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

Claims 6-26 are objected to because of the following informalities: They depend from cancelled Claim 5. For purposes of examination, it is assumed that it is intended that they depend from Claim 3. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

As to the Claims rejected below, they are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. All Claims should be reviewed for clarity. The Claims as currently presented completely fail to clearly convey what Applicants intend to be the invention due to their vague and indefinite wording.

Claims 1-4, 6-26 and 44-45 and 47-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-2 recite the phrase “synchronizing a communication to said billing terminal with a communication by said paying terminal when said settlement apparatus sets up a transaction identifying number which identifies the transaction.”. The concept of “synchronization” is unclear. It appears that “synchronization” is intended to be some form of authentication of the billing and paying terminals to each other and this is assumed for purposes

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of examination. This assumption is supported by Applicants' Specification at page 4, which states "the billing terminal and the paying terminal, both of which are synchronized with each other by the transaction identifying number".

Synchronous operation is understood in computer engineering to be operation under control of a system clock. A thorough review of the Specification shows no reference to a clock or timing pulse, common concepts with synchronization of computers in a network. The Specification is replete with references to synchronizing, but provide no clarification as to what is meant by the Claims. Occurrences of the concept which might provide clarity are merely circular, (e.g. at page 4, which refers to "a synchronization confirmation signal which indicates establishment of synchronization) and leave all references to the concept of synchronization vague and indefinite. These comments apply to all Claims discussed in the rejections directly below as well.

Claims 3-4 and 6-26 recite the phrase "said processing unit synchronizes a communication to the billing terminal' with a communication to the paying terminal and said first communication unit transmits to the billing terminal a synchronization confirmation signal which indicates establishment of synchronization". Again, it appears that authentication is occurring, but this is not clear from the claim language. **Claim 6** recites the vague concept of synchronization.

Claims 44 and 45 recite "said processing unit synchronizes a communication to the billing terminal with a communication to the paying terminal ...", and is similarly vague.

Claims 47-49 recite "said processing unit synchronizes a communication to the billing terminal with a communication to the paying terminal and said first communication unit

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transmits to the billing terminal a synchronization confirmation signal which indicates establishment of synchronization”, which is vague for the reasons set forth above.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It recites the phrase “to the paying terminal and *receives an answer the paying terminal inputting corresponding* to said order from the paying terminal”. The phrase italicized is unclear.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It recites the phrase “does not *essentially* require....”, It is unclear whether visual authentication is a limitation or not.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 45 is rejected under 35 U.S.C. § 101 because, the claimed invention is directed to a non-statutory subject matter. Specifically the method claim as presented does not claim a technological basis in the pre-amble and the body of the claim. Without a claimed basis, the claim may be interpreted in an alternative as involving no more than a manipulation of an abstract idea and therefore non-statutory under 35 U.S.C. 101. In contrast, a method claim that includes in the body of the claim at least one structural / functional interrelationship which can only be computer implemented is considered to have a technological basis [See Ex parte

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Bowman, 61 USPQ2d 1669, 1671 (Bd. Pat. App. & Inter. 2001) - used only for content and reasoning since not precedential].

In order to over come the 101 rejection above, the following preamble is suggested: "A computer implemented method for ---", or something similar. Also, in the body of the claim include at least one structural / functional interrelationship which can only be computer implemented.

Applicant has not amended the body of the claim to recite a technological feature in the form of a computer type element as required by the prior office action. The rejection is maintained.

Claim Rejections - 35 USC § 103

Claims 1-4, 6-14, 20-22 and 44-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,332,133 *Takayama* in view of US 6,332,134 *Foster et al.*

With respect to Claim 1, see the discussion of Claim 3 below, which Claim is more limited and recites at least the same elements.

Concerning Claim 2, see the discussion of Claims 1 and 4.

As to Claim 3, *Takayama* discloses the invention substantially as claimed including in a settlement apparatus performing a settlement of a transaction, which communicates with a billing terminal performing billing of the transaction and with a paying terminal performing paying of the transaction, the apparatus comprising:

a first communication unit (Fig. 3, ele. 303) connecting to the billing terminal (Fig. 3) via a first communication network (Fig. 3, ele. 313);

a second communication unit (Fig. 1, ele. 104) connecting to the paying terminal (Fig. 1, ele. 100; Fig. 2A, 2B) via second communication network (Fig. 1, ele. 106); and

a processing unit for processing the settlement of transaction (Fig. 1, eles. 102, 103), said processing unit synchronizing a communication to the billing terminal with a communication to the paying terminal (Col. 45, lines 16-22) when said processing unit sets up a transaction identifying number to identify the transaction (Col. 71, lines 32-40).

Takayama does not specifically disclose the limitations imported from cancelled claim 5. *Foster* discloses that a billing unit (Fig. 2, ele. 206) in receipt of a transaction identifier (Fig. 2, Order Number) sends the transaction identifier (Fig. 2, Order Number) to a paying unit (Fig. 2, ele. 204) which then forwards the transaction identifier to a processing unit (Fig. 2, ele. 202). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the transaction number generated by the processing unit of *Takayama* for circulation in the system of *Foster* to assure that all parties to the transaction showed the same *bona fides* and were therefore properly authenticated.

The desirability of the combination is indicated by *Foster* in a description from Col. 2, lines 26-40 of transaction execution quoted below:

The present invention includes a financial transaction system that solves the problem of security for consumer credit card information transmitted over the Internet. The financial transaction system reverses the process with regard to card transactions conducted via computers and computer networks. *Instead of cardholders transmitting their card numbers to merchants, the system obtains merchant information and requests that the cardholder's own card company pay the merchant. The cardholder's credit card number never travels across the Internet. The merchant never learns of the cardholder's card number. In one embodiment, only a shipping address is disclosed to the merchant, which comes directly from the card company along with a notification that the payment has been made.*

In the instance of the combination, the transaction identifier circulated among the entities provides proof to all that each is an authentic party to the transaction.

Concerning Claim 4, *Takayama* discloses that the billing terminal communicates over a telephone line at Fig. 1, eles. 110,109. *Takayama* further discloses that the paying terminal connects to the settlement apparatus by radio telephone communications at Col 43, line 59 to col. 44, lines 29.

Concerning Claim 6, *Takayama* does not specifically disclose transmission of the transaction identification number by the paying terminal. *Foster* discloses this limitation at Fig. 2, as set forth in the discussion of Claim 3.

Concerning Claim 7, *Takayama* discloses receipt of a purchase amount from a billing terminal for settlement at Col. 4, line 11 to col. 5, line 17.

Concerning Claim 8, see the discussion of Claim 7 and *Takayama* further discloses a settlement completion notification at Col. 11, lines 49-60 and a receipt to the paying terminal of a settled amount at Col. 52, lines 6-10. Official Notice is taken that it was old and well known to process settlements after purchase confirmation. For example, the simple use of a checksum would provide confirmation of a purchase amount. It would have been obvious to one of ordinary skill in the art at the time of the invention to use such purchase confirmation in the invention of *Takayama* because this would help assure correct charges to payors.

Concerning Claims 9 and 10, Official Notice is taken that unique identification of financial terminals and confirmation through such identification is old and well known in the financial arts. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Takayama* with such features to enhance security and reduce loss.

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Concerning Claims 11-13, *Takayama* discloses a purchase history at Col. 71, lines 26-58.

With respect to Claim 14, *Takayama* does not specifically disclose that the first communication unit supplies authentication information. Official Notice is taken that it was old and well known to centralize distribution of secured information, as in the manner claimed. For example, the use of a secure authentication server protected information and improved transaction security. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Takayama* to use authentication information from a central server (first communication unit of a settlement system) because this would provide a secure and convenient way to distribute, receive and authenticate information.

Concerning Claims 20 and 22, *Takayama* does not specifically disclose that authentication is mutually agreed upon. Official Notice is taken that providing choices to customers is old and well known in marketing. For example, *Takayama* discloses providing users with several choices of credit cards at Col. 71, lines 15-40. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Takayama* to also provide multiple authentication approaches to enhance customer satisfaction. Further, if no method were agreeable, refusal would be obvious to eliminate risk of loss.

Concerning Claim 21, *Takayama* does not specifically disclose selection of more accurate authentication. Official Notice is taken that such a selection is old and well known in transaction security. For example, less accurate authentication would increase risk of loss. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Takayama* to select more accurate authentication to reduce risk of loss through fraud..

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With respect to Claim 44, see the discussion of Claim 3 and note that *Takayama* is a computer based method using software.

Concerning Claims 45-49, see the discussions set forth above.

Claims 15-19 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,332,133 *Takayama* in view of US 6,332,134 *Foster et al* and further in view of US 5,604,802 *Holloway*.

As to Claim 15, *Takayama* discloses the invention substantially as claimed. See the discussions above. *Takayama* does not specifically disclose the use of a facial portrait of a user to authenticate. *Holloway* discloses this limitation at Col. 6, line 39-41. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Takayama* to use facial image authentication of *Holloway* because this would provide a reliable and effective authentication.

As to Claim 16, *Takayama* discloses the invention substantially as claimed. See the discussions above. *Takayama* does not specifically disclose the use of a password to authenticate. *Holloway* discloses this limitation at Col. 6, line 39-41. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Takayama* to use the password authentication of *Holloway* because this would provide a reliable and effective authentication.

As to Claim 17, *Takayama* discloses the invention substantially as claimed. See the discussions above. *Takayama* does not specifically disclose the use of requested information to authenticate. *Holloway* discloses this limitation at Col. 6, line 39-41 as a PIN. It would have

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been obvious to one of ordinary skill in the art at the time of the invention to modify *Takayama* to use the supplied information of *Holloway* because this would provide a reliable and effective authentication.

Concerning Claim 18, *Takayama* discloses notification of an authentication result at Col. 13, lines 16-37.

As to Claim 19, *Takayama* does not specifically disclose random selection of an authentication means. Official Notice is taken that it was old and well known to randomly select authentication means. For example, one might first select password and later randomly select biometric authentication. Such random selection reduces the chance that a fraudulent user could predict the required authentication information. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Takayama* to use random selection of authentication means because this would make fraud more difficult by presenting more authentication means for fraudulent users to contend with.

Concerning Claim 23, see the discussion of Claims 15 and 16, and Claim 22.

Concerning Claim 24, see the discussions set forth above.

Concerning Claim 25, see the discussion of Claim 15 and 22.

As to Claim 26, inclusion of additional authentication means would be obvious to enhance security.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

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Applicant has requested references supporting Official Notice taken by the Examiner.

These are as follows:

With respect to the rejection of Claim 8, *Imamura et al* discloses settlement following purchase confirmation at Col. 4, line 42 to Col. 5, line 4.

With respect to the rejection of Claims 9 and 10, *Heath, Jr.* discloses unique terminal identifiers at Summary of the Invention.

With respect to the rejection of Claim 14, *Krajewski, Jr.* discloses a secure authentication server at Col. 5, lines 55-63.

With respect to the rejection of Claims 20-22, *Schneck et al* discloses varying (increasing) authentication at Summary of the Invention.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Microsoft Press Computer Dictionary, 3rd ED. 1997, page 456.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles R Kyle whose telephone number is (703) 305-4458. The examiner can normally be reached on M-F 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent A Millin can be reached on (703) 308-1065. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

crk
March 3, 2005

Examiner Charles Kyle

A handwritten signature in black ink, appearing to read "Charles Kyle", with a stylized flourish at the end.